EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Paul Kriz on 2/10/08.

The application has been amended as follows:

1.   (Currently Amended) A computer-implemented method to support displaying management information in a graphical user interface, the computer-implemented method comprising:

receiving selection of multiple entries in a hierarchy, the selection including multiple managed entities in a network;

displaying a management information view that includes management information associated with the multiple managed entities in the network;

displaying a drill down menu associated with the management information view, the drill down menu including selectable drill down options that correspond to respective drill down functions selectively applied to the management information associated with the multiple managed entities;

identifying a selected drill down option chosen from the drill down menu;

producing a drill down view by applying the respective drill down function associated with the selected drill down option to the management information associated with the multiple managed entities, the produced drill down view including a presentation of the management information based on the applied respective drill down function;

displaying the drill down view on the graphical user interface; and

continuing to display the drill down menu even after producing the drill down view for selection of another drill down option from the drill down menu and further drilling down with respect to the produced drill down view; and

displaying path information in relation to the management information view, the path information including: i) an entry corresponding to a present drill down level view of the displayed management information in the management view, and ii) at least one entry of a previous drill down level view of previously displayed management information;

wherein the path information includes entries indicating a sequence of drill down options selected from the drill down menu to view the present drill down menu view; and

wherein the at least one entry of the previous drill down level view may be selected by a user to change contents of the management information view back to a corresponding previously displayed management information view.

2.   (Currently Amended) A computer-implemented method as in claim 1, wherein the respective drill down function associated with the selected drill down option identifies a particular category in which to drill down to a lower level with respect to the management information associated with the multiple managed entities.

3.   (Currently Amended) A computer-implemented method as in claim 2, wherein displaying the drill down menu includes:

displaying the drill down menu to include drill down options associated with managed entities in a storage area network, the drill down menu including at least one of the following drill down options: database, database file, file system,

volume group, host device, HBA (Host Bus Adapter), storage device, pool, port/storage group, unallocated devices.

4.   (Currently Amended) A computer-implemented method as in claim 1, wherein displaying the management information view includes:

      receiving a selection of a type of management information view in which to display management information associated with the multiple managed entities ; and

      based on the selection of a type of management information view, applying a display function to the management information associated with the multiple managed entities in the network to graphically display the management information.

5.   (Currently Amended) A computer-implemented method as in claim 1, wherein displaying a management information view includes:

      maintaining a database of managed objects associated with managed entity icons, the managed entity icons corresponding to managed entities of a storage area network; and

      upon detecting selection of the multiple managed entity icons for producing a management information view, retrieving multiple corresponding managed objects stored in the database associated with the selected multiple managed entity icons to identify the management information associated with the selection of the at least one managed entity icon.

6.   (Currently Amended) A computer-implemented method as in claim 1 further comprising:

allocating a first portion of a display screen to include the hierarchy, the hierarchy including selectable icons representing managed entities of a storage area network;

allocating a second portion of the display screen to include the management information view associated with the multiple managed entities in the network;

allocating a third portion of the display screen to display a detailed view including separately listed entries of management information for each of the multiple managed entities in the network displayed in the second portion of the display screen; and

allocating a fourth portion of the display screen to include the drill down menu.

7.   (Currently Amended) A <u>computer-implemented</u> method as in claim 1 further comprising:

in relation to the management information view including management information associated with the multiple managed entities in the network, displaying a detailed view of individually presented management information for each of the multiple managed entities.

8.   (Currently Amended) A <u>computer-implemented</u> method as in claim 7, wherein the management information in the management information view includes a multi-axis graph of collective management information associated with multiple managed entities of the network.

9.   (Currently Amended) A <u>computer-implemented</u> method as in claim 7 further comprising:

providing corresponding icons on the display screen to enable a user to selectively hide the management information view.

10.   (Currently Amended) A <u>computer-implemented</u> method as in claim 1, wherein the management information in the management information view includes a multi-axis single graph of collective management information associated with the multiple managed entities.

11.   (Canceled)

12.   (Canceled)

13.   (Currently Amended) A <u>computer-implemented</u> method as in claim 1 further comprising:

highlighting a subset of drill down options in the drill down menu depending on which of the drill down options may be selected by a user to produce a next displayable drill down view.

14.   (Currently Amended) A <u>computer-implemented</u> method as in claim 1 further comprising:

displaying a hierarchy of managed entity icons that may be traversed based on use of a drill down technique; and

in relation to at least a portion of the managed entity icons in the hierarchy, providing a display region in relation to the managed entity icons to receive an input selection by a user of which management information to display for multiple selected managed entities of the network.

15.   (Currently Amended) A <u>computer-implemented</u> method as in claim 1, wherein
the drill down menu includes at least two sets of selectable drill down options, a
first set of selectable drill down options related to storage features of a storage
area network, a second set of drill down options related to host features of the
storage area network.

16.   (Currently Amended) A <u>computer-implemented</u> method as in claim 1 further
comprising:

in relation to the management information view including management
information associated with the at least one managed entity in the network,
displaying a detailed view of individually presented management information for
each of the multiple managed entities;

enabling a user to individually select each of the multiple managed entities
in the detailed view; and

wherein producing a drill down view further includes applying the
respective drill down function to management information associated with
individually selected managed entities displayed in the detailed view.

17.   (Currently Amended) A <u>computer-implemented</u> method of displaying
management information on a display screen, the <u>computer-implemented</u>
method comprising:

on a first portion of the display screen, displaying a hierarchy of selectable
icons representing managed entities of a storage area network;

on a second portion of the display screen, displaying a detailed view of
separately listed management information for each of at least two managed
entities selected from the hierarchy; and

on a third portion of the display screen, displaying a drill down menu of multiple selectable drill down options, the drill down menu being continuously displayed even after selection of one of the multiple selectable drill down options, the drill down menu enabling drilling down with respect to at least a portion of the management information displayed in the detailed view of separately listed management information;

in a fourth portion of the display screen, displaying path information in relation to the management information, the path information including: i) an entry corresponding to a present drill down level view of the displayed management information in the management view, and ii) at least one entry of a previous drill down level view of previously displayed management information;

wherein the path information includes entries indicating a sequence of drill down options selected from the drill down menu to view the present drill down menu view; and

wherein the at least one entry of the previous drill down level view may be selected by a user to change contents of the management information back to corresponding previously displayed management information;

highlighting a first selectable drill down option and a second selectable drill down option in the drill down menu to indicate that from the first selectable drill down option and the second selectable drill down option can be selected by a viewer and applied to the management information in the second portion of the display screen; and

in response to receiving selection of the first selectable drill down option from the drill down menu:

i) updating the separately listed management information for each of the at least two managed entities selected from the hierarchy by providing a drill down view in accordance with the selection of the first selectable drill download; and

ii) discontinuing highlighting of the first selectable drill down option from the drill down menu to indicate that the first selectable drill down option can no longer be selected to drill down with respect to a current drill down level view of the management information in the second portion of the display screen.

18.   (Canceled)

19.   (Currently Amended) A computer-implemented method as in claim 17, [[claim 18,]] wherein the drill down menu includes at least two sets of selectable drill down options, a first set of selectable drill down options grouped and labeled to indicate that the first set of selectable drill down options can be used to drill down with respect to storage features of a storage area network, a second set of drill down options grouped and labeled to indicate that the second set of selectable drill down options can be used to drill down with respect to host features of the storage area network.

20.   (Currently Amended) A computer-implemented method as in claim 17 [[claim 18]] further comprising:

on a fourth portion of the display screen, displaying path information including: i) an entry corresponding to a drill down view of presently displayed management information, and ii) at least one entry corresponding to a previously displayed drill down view of management information.

21.   (Currently Amended) A computer system supporting management information views associated with a storage area network, the computer system comprising:

a processor;

a memory unit that stores instructions associated with an application executed by the processor;

a communication interface that supports communication with other nodes of the storage area network; and

an interconnect coupling the processor, the memory unit, and the communication interface, enabling the computer system to execute the application and perform operations of:

receiving selection of multiple entries in a hierarchy, the selection including multiple managed entities in a network;

displaying a management information view that includes management information associated with the multiple managed entities in the network;

displaying a drill down menu associated with the management information view, the drill down menu including selectable drill down options that correspond to respective drill down functions selectively applied to the management information associated with the multiple managed entities;

identifying a selected drill down option chosen from the drill down menu;

producing a drill down view by applying the respective drill down function associated with the selected drill down option to the management information associated with the multiple managed entities, the produced drill down view including a presentation of the management information based on the applied respective drill down function; displaying the drill down view on the graphical user interface; and

continuing to display the drill down menu even after producing the drill down view for selection of another drill down option from the drill down

menu and further drilling down with respect to the produced drill down view; and

      displaying path information in relation to the management information view, the path information including: i) an entry corresponding to a present drill down level view of the displayed management information in the management view, and ii) at least one entry of a previous drill down level view of previously displayed management information;

      wherein the path information includes entries indicating a sequence of drill down options selected from the drill down menu to view the present drill down menu view; and

      wherein the at least one entry of the previous drill down level view may be selected by a user to change contents of the management information view back to a corresponding previously displayed management information view.

22.   (Previously Presented) A computer system as in claim 21, wherein the respective drill down function associated with the selected drill down option identifies a particular category of multiple categories in which to drill down to a lower level with respect to the management information associated with the at least one managed entity.

23.   (Canceled)

24.   (Canceled)

25.   (Canceled)

26.   (Canceled)

27.   (Canceled)

28.   (Canceled)

29.   (Canceled)

30.   (Canceled)

31.   (Canceled)

32.   (Canceled)

33.   (Original) A computer system as in claim 21 that additionally performs operations
        of:

                highlighting a subset of drill down options in the drill down menu
        depending on which of the drill down options may be selected by a user to
        produce a next displayable drill down view.

34.   (Original) A computer system as in claim 21 that additionally performs operations
        of:

displaying a hierarchy of managed entity icons that may be traversed based on use of a drill down technique; and

in relation to at least a portion of the managed entity icons in the hierarchy, providing a display region in relation to the managed entity icons to receive an input selection by a user of which management information to display for multiple selected managed entities of the network.

35.   (Original) A computer system as in claim 21, wherein the drill down menu includes at least two sets of selectable drill down options, a first set of selectable drill down options related to storage features of a storage area network, a second set of drill down options related to host features of the storage area network.

36.   (Previously Presented) A computer system as in claim 21 that additionally performs operations of:

in relation to the management information view including management information associated with the multiple managed entities in the network, displaying a detailed view of individually presented management information for each of the at least one managed entities;

enabling a user to individually select each of the multiple managed entities in the detailed view; and

wherein producing a drill down view further includes applying the respective drill down function to management information associated with individually selected managed entities displayed in the detailed view.

37.   (Currently Amended) A computer system for displaying management information views associated with a storage area network, the computer system comprising:
        a processor;

a memory unit that stores instructions associated with an application executed by the processor;

a communication interface that supports communication with nodes of the storage area network; and

an interconnect coupling the processor, the memory unit, and the communication interface, enabling the computer system to execute the application and perform operations of:

on a first portion of a display screen, displaying a vertical hierarchy of selectable icons representing managed entities of a storage area network;

on a second portion of the display screen, displaying a detailed view of separately listed management information for each of the at least two selected managed entities selected from the hierarchy; and

on a third portion of the display screen, displaying a drill down menu including multiple selectable drill down options, the drill down menu being continuously displayed even after selection of one of the multiple selectable drill down options, the drill down menu enabling drilling   down with respect to at least a portion of the management information displayed in the detailed view of separately listed management information;

in a fourth portion of the display screen, displaying path information in relation to the management information, the path information including: i) an entry corresponding to a present drill down level view of the displayed management information, and ii) at least one entry of a previous drill down level view of previously displayed management information;

wherein the path information includes entries indicating a sequence of drill down options selected from the drill down menu to view the present drill down menu view; and

wherein the at least one entry of the previous drill down level view
may be selected by a user to change contents of the management
information view back to a corresponding previously displayed
management information.

38.   (Previously Presented) A computer system as in claim 37 that additionally
performs operations of:

highlighting a first selectable drill down option and a second selectable drill
down option in the drill down menu to indicate that from the first selectable drill
down option and the second selectable drill down option can be selected by a
viewer and applied to the management information in the second portion of the
display screen; and

in response to receiving selection of the first selectable drill down option
from the drill down menu:

i) updating the separately listed management information for each
of the at least two managed entities selected from the hierarchy by
providing a drill down view in accordance with the selection of the first
selectable drill download; and

ii) discontinuing highlighting of the first selectable drill down option
from the drill down menu to indicate that the first selectable drill down
option can no longer be selected to drill down with respect to a current drill
down level view of the management information in the second portion of
the display screen.

39.   (Previously Presented) A computer system as in claim 38, wherein the drill down
menu includes at least two sets of selectable drill down options, a first set of
selectable drill down options grouped and labeled to indicate that the first set of

selectable drill down options can be used to drill down with respect to storage features of the storage area network, a second set of drill down options grouped and labeled to indicate that the second set of selectable drill down options can be used to drill down with respect to host features of the storage area network.

40.   (Canceled)

41. (Currently Amended) A computer program product including a computer-readable medium having instructions stored thereon for processing data information, such that the instructions, when carried out by a processing device, enable the processing device to perform operations of:

displaying a management information view that includes management information associated with at least one managed entity in a network;

displaying a drill down menu associated with the management information view, the drill down menu including selectable drill down options that correspond to respective drill down functions selectively applied to the management information associated with the at least one managed entity;

identifying a selected drill down option chosen from the drill down menu;

producing a drill down view by applying the respective drill down function associated with the selected drill down option to the management information associated with the at least one managed entity, the produced drill down view including a presentation of the management information based on the applied respective drill down function;

displaying the drill down view on the graphical user interface; and

continuing to display the drill down menu even after producing the drill down view for selection of another drill down option from the drill down menu and further drilling down with respect to the produced drill down view;

displaying path information in relation to the management information view, the path information including: i) an entry corresponding to a present drill down level view of the displayed management information in the management view, and ii) at least one entry of a previous drill down level view of previously displayed management information;

wherein the path information includes entries indicating a sequence of drill down options selected from the drill down menu to view the present drill down menu view; and

wherein the at least one entry of the previous drill down level view may be selected by a user to change contents of the management information view back to a corresponding previously displayed management information view.

42.   (Currently Amended) A computer system for supporting management information views associated with a storage area network, the computer system including:

means for displaying a management information view that includes management information associated with at least one managed entity in a network;

means for displaying a drill down menu associated with the management information view, the drill down menu including selectable drill down options that correspond to respective drill down functions selectively applied to the management information associated with the at least one managed entity;

means for identifying a selected drill down option chosen from the drill down menu;

means for producing a drill down view by applying the respective drill down function associated with the selected drill down option to the management information associated with the at least one managed entity, the produced drill down view including a presentation of the management information based on the applied respective drill down function; and

means for displaying the produced drill down view

means for continuing to display the drill down menu even after producing the drill down view for selection of another drill down option from the drill down menu and further drilling down with respect to the produced drill down view;

means for displaying path information in relation to the management information view, the path information including: i) an entry corresponding to a present drill down level view of the displayed management information in the management view, and ii) at least one entry of a previous drill down level view of previously displayed management information;

wherein the path information includes entries indicating a sequence of drill down options selected from the drill down menu to view the present drill down menu view; and

wherein the at least one entry of the previous drill down level view may be selected by a user to change contents of the management information view back to a corresponding previously displayed management information view.

43.   (Currently Amended) A computer-implemented method as in claim 20 further comprising:

displaying the entry corresponding to the drill down view of presently displayed management information to include a label corresponding to a selectable drill down option selected by a viewer to view the current drill down level; and

displaying the path information to include entries corresponding to
previously viewed drill down levels of the management information.

44.   (Currently Amended) A computer-implemented method as in claim 17 further
comprising:

on a fourth portion of the display screen, displaying path information
including entries indicating a sequence of drill down options selected by a viewer,
each of the entries being selectable by the viewer to revert back to a previous
drill down level.

45.   (Currently Amended) A computer-implemented method as in claim 1, wherein
displaying the drill down menu includes:

highlighting a first group of the selectable drill down options to indicate that
at least a first selectable drill down option and a second selectable drill down
option in the first group can be selected to drill down with respect to the
management information associated with the multiple managed entities; and

de-highlighting a second group of the selectable drill down options to
indicate that at least a third selectable drill down option and a fourth selectable
drill down option in the second group cannot be selected to drill down with
respect to the management information associated with the multiple managed
entities.

46.   (Currently Amended) A computer-implemented method as in claim 45, wherein
identifying the selected drill down option includes receiving selection of the first
selectable drill down option in the first group, the computer-implemented method
further comprising:

in response to receiving the selection of the first selectable drill down option, i) initiating display of the management information in accordance with the first selectable drill down option, and ii) de-highlighting the first selectable drill down option to indicate that the first selectable drill down option cannot be selected.

47.   (Currently Amended) A <u>computer-implemented</u> method as in claim 46 further comprising:

displaying path information including a first entry corresponding to the selection of the first selectable drill down option in the drill down menu.

48.   (Currently Amended) A <u>computer-implemented</u> method as in claim 47 further comprising:

receiving selection of the second selectable drill down option in the first group;

in response to receiving the selection of the second selectable drill down option, i) initiating display of a further drill down view of the management information in accordance with the second selectable drill down option, and ii) de-highlighting the second selectable drill down option in the drill network menu.

49.   (Currently Amended) A <u>computer-implemented</u> method as in claim 48 further comprising:

displaying the path information to include a second entry, which follows the first entry in the path information, the second entry corresponding to the selection of the second selectable drill down option in the drill down menu.

50.   (Currently Amended) A <u>computer-implemented</u> method as in claim 49 further
        comprising:

                enabling selection of the first entry in the path information;

                in response to receiving selection of the first entry in the path information,
        displaying the management information in accordance with the first selectable
        drill down option.

Allowable Subject Matter

The following is an examiner's statement of reasons for allowance: "producing a drill
down view by applying the respective drill down function associated with the selected drill down
option to the management information associated with the multiple managed entities, the
produced drill down view including a presentation of the management information based on the
applied respective drill down function;

displaying the drill down view on the graphical user interface; and

continuing to display the drill down menu even after producing the drill down view for
selection of another drill down option from the drill down menu and further drilling down with
respect to the produced drill down view; and

displaying path information in relation to the management information view, the path
information including: i) an entry corresponding to a present drill down level view of the
displayed management information in the management view, and ii) at least one entry of a
previous drill down level view of previously displayed management information;

 wherein the path information includes entries indicating a sequence of drill down options
selected from the drill down menu to view the present drill down menu view; and

wherein the at least one entry of the previous drill down level view may be selected by a
user to change contents of the management information view back to a corresponding previously
displayed management information view."

Any comments considered necessary by applicant must be submitted no later than the

payment of the issue fee and, to avoid processing delays, should preferably accompany the issue

fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for

Allowance."

Contact Information

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to SIMON KE whose telephone number is (571)272-4062. The

examiner can normally be reached on M-Th and Alternate Fridays 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Stephen S. Hong can be reached on (571) 272-4124. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

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like assistance from a USPTO Customer Service Representative or access to the automated

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